

Observations and notes on Planipennia, Mecoptera and Odonata of Bahçesaray district (Van Province, East Turkey)

Muhabbet Kemal ¹ Ahmet Ömer Koçak

Abstract: Observations and notes on Planipennia, Mecoptera and Odonata of Bahçesaray district (Van Province, East Turkey). *Cesa News* 153: 1-5, 8 figs.

In this paper, 14 species of 9 families in three orders are reported here from Bahçesaray for the first time. Some faunistic and ecological notes are added. Observations in nature on some species are illustrated.

Keywords: Planipennia, Mecoptera, Odonata, fauna, Bahçesaray, Van, Turkey.

In the previous publication, the authors listed some orthopteroid species observed or collected from Bahçesaray district (Kemal & Koçak, 2017). The present list of the Planipennia, Mecoptera, and Odonata of Bahçesaray district are based upon mainly on the observations of the authors, during their several entomological trips in 2016 to the district Bahçesaray (Van Province, East Turkey), in order to determine primarily the Lepidoptera fauna.

The authors investigated other pterygot groups in Bahçesaray from time to time. The present orders listed below were completely unknown from the district. In the previous papers on the Bahçesaray Pterygota, the authors listed 819 species. The present paper comprises only 14 species of 9 families of three orders from the Bahçesaray district. Thus, the total number of the Pterygota fauna of Bahçesaray reached to 833.

To each species, synonymous names, and the range as codes are added (Koçak & Kemal, 2017). Some species, where observed in their living places of Bahçesaray are illustrated.

¹ Asst. Prof. Dr. Muhabbet Kemal, Van Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Campus, Van / Turkey.
e-mail: muhabbet_kemal@yahoo.com.tr - co-author: Prof. em. Dr. Ahmet Ömer Koçak, c/o Van Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Campus, Van / Turkey. e-mail: cesa_tr@yahoo.com.tr

List of the species of Planipennia

Ascalaphidae

1. *Bubopsis hamata* (Klug, 1834)

Synonym(s): *hamatus* Klug, 1834

Range (in code): DZ GR TR IR SA AE EG IQ IR Km SY IL Pa JO Cc GG AZ TM Kp 01 02 05 07 17 21 23 32 34 44 47 56 58 63 65 80 65A 65Ac 65Ac3 65N 65Nb 65Np4 65Np5 65Nm

Remarks: Rare, diurnal. Recorded at alpine zone (Liman 2320m).

2. *Libelloides macaronius* (Scopoli, 1763) (Figs. 1,2)

Synonym(s): *macaronius* Scopoli, 1763

Range (in code): AT IT HU CZ SK YU UA TR Cc GG IR SY RU KG TJ KK CN Ui 01 04 05 06 07 10 13 14 15 17 20 22 24 25 30 31 32 33 38 40 42 44 47 51 52 56 62 63 65 68 76 13G 13F 56F 56F1 65A 65Ai 65At 65At1 65D 65Df 65Dn 65F 65Fe 65Fp 65Fz 76D 76Dd

Remarks: Locally common, strongly heliophil. Recorded at Paşaköy, and Altındere in Bahçeşaray.

Chrysopidae

3. *Chrysoperla carnea* (Stephens, 1836)

Synonym(s): *carnea* Stephens, 1836

Range (in code): TR 01 02 04 05 06 07 08 09 13 15 17 20 21 22 23 25 27 30 32 33 34 35 38 40 42 44 46 47 48 50 51 55 56 60 61 63 65 72 73 75 76 65A 65Am 65Am1

Remarks: Frequently nocturnal.

Myrmeleonidae

4. *Megistopus flavicornis* (Rossi, 1807)

Synonym(s): *flavicornis* Rossi, 1807; *bisignatus* Rambur, 1842

Range (in code): IT SK AT TR IR Elb Th 07 16 36 44 48 65 65A 65At 65At5

Remarks: A single insect recorded at Altındere. Apparently rare.

5. *Palpares turcicus* Koçak, 1976 (Figs. 3,4)

Synonym: *turcicus* Koçak, 1976

Range (in code): IR Elb Th Es Ha Kd Fa Lo Yz Zj TR Cc AM AZ Nv Ord SY 30 56 58 62 65 30B 30Bd 56F 56Fn 58G 62E 65A 65Ai 65Am 65Am4 65Ac 65Ac3 65Aş 65D 65Df 65F 65Fe 65Fp 65Fz 65K 65Kd 65Ké 65Kg 65Kz

Remarks: The species was originally described from Zab Valley near Kırkdag in Hakkari Province (Koçak, 1976). Nocturnal, common especially in Hakkari and Van Province (SE Turkey). Recorded at Paşaköy, Upper Mukus Valley, and Imamlı between 1600-2600m.

For the validity of the name after 41 years, vide: Krivokhatsky, V., Hajiesmailian, A., Mirmoayedi, A., Khabiev, G., Dobosz, R. & M. Ostroverkhova (2017).

Nemopteridae

6. *Nemoptera sinuata* Olivier, 1811 (Figs. 5,6)

Synonym(s): *sinuata* Olivier, 1811

Range (in code): YU RO GR BG TR SY Cc IR 01 02 05 06 07 08 09 10 11 13 14 15 16 19 20 25 30 31 32 33 34 35 36 37 38 42 43 46 48 49 56 60 62 63 65 68 06N 06Nb 07M 07Mb 13A 13Ab 13Ac 13Ax 13G 13Ge 30B 30Bc 30Bc1 56F 62E 65A 65Ai 65Au 65Am 65Am1 65D 65Dn 65Do 65Doa 65F 65Fd 65Fp 65Fz

Remarks: Common in the damp meadows, openings of woodland. Adults visit frequently Asteraceae flowers (Achillea, Tanacetum, etc.). Heliophil.

Osmylidae

7. *Osmylus multiguttatus* McLachlan, 1870

Synonym(s): *multiguttatus* McLachlan, 1870

Range (in code): TR 13 25 38 61 62 65 80 13C 13Cd 38N 62G 65A 65At 65D 65Do
 Remarks: A single record from Altındere. Heliophil-sciophil.

List of the species of Mecoptera

Panorpidae

8. *Panorpa tatvana* Willmann, 1974 (Figs. 7, 8)

Synonym(s): *tatvana* Willmann, 1974

Range (in code): TR 06 13 14 65 06R 06Ra 06Rf 13G 14I 14Ib 65A 65Ap 65D 65Do

Remarks: Sciophil. It flies by day in the shadows of the openings of woodlands.

List of the species of Odonata

Following *Anisoptera* species are frequently seen in the openings of woodlands in Bahçesaray.

Aeshnidae

9. *Caliaeschna microstigma* (Schneider, 1845)

Synonym(s): *microstigma* Schneider, 1845

Range (in code): BG GR TR Cc GG LB IR CY IQ Dk RU SY 05 07 15 24 31 33 34 39 48 51 65 65A 65At 65At4

Cordulegasteridae

10. *Cordulegaster insignis* Schneider, 1845

Synonym(s): *insignis* Schneider, 1845; *amasina* Morton, 1916

Range (in code): BG RO GR TR Cc GG Lag AM LB IQ Mos Dk Ama IR Fa 05 10 16 24 33 44 51 47 65 65A 65At 65At1
 65F 65Fç 65Fz 65N 65Np4 65Nr2 65Nr3 65Nm

Libellulidae

11. *Libellula depressa* Linnaeus, 1758

Synonym(s): *depressa* Linnaeus, 1758

Range (in code): GB SE FI Co Sa Si TR Cc RU Ur KG SY KG 01 05 06 07 08 13 14 22 23 24 25 31 34 40 46 47 59 65 70
 13F 13G 13Gö 13Gğ 31M 46H 46Hc 65A 65Ai 65As 65D 65Dç 65Dw 65Fz 65N 65Nr4 65Nm

12. *Orthetrum brunneum* (Fonscolombe, 1837)

Synonym(s): *brunneum* Fonscolombe, 1837

Range (in code): TR UZ Smk Tas CN Ui Ku 02 08 13 16 19 21 24 33 44 45 46 48 65 66 13F 21N 44L 44Lc 65A 65Ai
 65F

13. *Sympetrum sanguineum* (O.F.Müller, 1764)

Synonym(s): *sanguineum* O.F.Müller, 1764

Range (in code): PT ES FR BE NL DK DE GB DK NO SE FI EE LT LV BY RU UA MD RO CZ SK PL HU CH AT SS HV
 YU MK BG GR AL IT Co Sa Si TR Cc AM 25 30 34 40 48 63 65 69 65A 65Ai

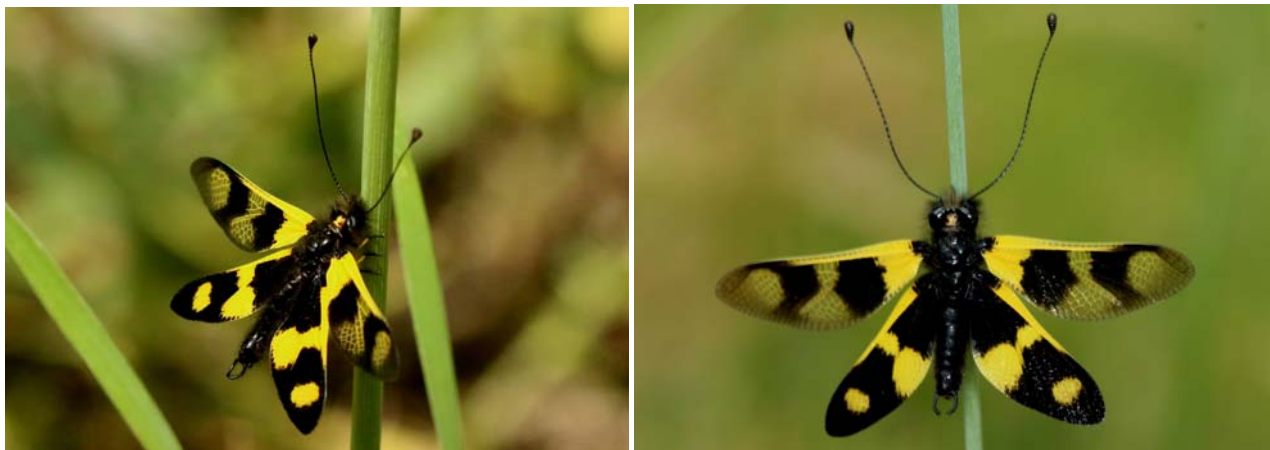
14. *Sympetrum striolatum* (Charpentier, 1840)

Synonym(s): *striolatum* Charpentier, 1840; *pallidum* Selys, 1887 [ssp.]

Range (in code): PT ES FR GB NO SE FI DK DE EE LT LV RU UA PL CZ SK HU CH AT IT Co Sa Si AL GR MK MD RO
 BG YU SS Cr Rd CY TR MN Cc GG Im Kta Tbl 05 10 13 16 24 33 35 47 48 65 13A 13Ab 13Ax 65A 65Ai 65D

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Figs. 1, 2 - Observations on *Libelloides macaronius* from Bahçesaray; male at Altındere on 26 6 2016 (left), and on 4 7 2016 (right), M. Kemal (Cesa)



Figs. 3, 4 - Observations on *Palpares turcicus* from Bahçesaray, Upper Mukus valley 1840m (65Am4) on 6 8 2016 (left), from İmamlı on 15 7 2017 (right), M. Kemal (Cesa)



Figs. 5, 6 - Observations on *Nemoptera sinuata* from Bahçesaray Lower Mukus valley, meadows 1540m (65Au) 12 6 2016 (left); from Paşaköy 1600m (65Ai) on 12 6 2016 (right), M. Kemal (Cesa)



Figs. 7, 8 - Observations on *Panorpa tatvana* from Bahçesaray; male at İhtiyartaşı on 3 6 2016 (left), female at Paşaköy 1600m (65Ai) on 23 6 2016 (right), M. Kemal (Cesa)

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